



Appl. No. 09/668,777  
Amdt. dated Nov. 24, 2004  
Reply to Office Action of May 24, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Currently Amended) A method for selecting at least one of audio and video

comprising:

- (a) receiving user attribute information corresponding to user preferences, where said user attribute information includes first hierarchical levels, wherein said first hierarchical levels includes at least two levels with a first user attribute information of a first level associated with both a second and a third user attribute information of a second level;

- (b) receiving program attribute information corresponding to said at least one of audio and video, where said program attribute information includes second hierarchical levels, wherein said second hierarchical levels includes at least two levels with a first program attribute information of a first level associated with both a second and a third program attribute information of a second level;
- (c) providing a mapping that interrelates at least a portion of said user attribute information and at least a portion of said program attribute information based upon said first and second hierarchical levels; and
- (d) selecting, in response to receiving said user attribute information and said program attribute information, at least one of audio and video based upon said mapping between said user attribute information and said program attribute information.

7. (Original) The method of claim 6 wherein said user attribute information includes an individual preference element including a name identifier and a value, and said program attribute information includes a program description element including a name identifier and a value.

8. (Original) The method of claim 7 wherein said values are compared.

9. (Original) The method of claim 6 wherein said mapping includes a first path of said user attribute information within said first hierarchical levels that identifies at least one of said user attribute information, a second path of said program attribute information within said second hierarchical levels that identifies at least one of said program attribute information.

10. (Original) The method of claim 9 wherein at least one of said first path and said second path uniquely identifies a respective one of said at least one of said user attribute information and said at least one of said program attribute information.

11 (Original) The method of claim 10 wherein said first path uniquely identifies said at least one of said user attribute information.

12. (Original) The method of claim 11 wherein said at least one of said user attribute information includes a name identifier that is not unique within said user attribute information.

13. (Original) The method of claim 9 wherein said first path interrelates to information identified by said second path and said mapping includes a third path of said user attribute information within said first hierarchical levels that is interrelated to said information identified by said second path.

14. (Original) The method of claim 6 wherein said mapping includes identification of instances of multiple children of a parent.

15. (Original) The method of claim 6 wherein said mapping includes identification of a particular child of a parent, where said parent includes multiple children.

16. (Original) The method of claim 6 wherein said mapping includes identification of a particular parent for restricting said selecting.

17. (Currently Amended) A method for selecting at least one of audio and video comprising:

- (a) receiving user attribute information corresponding to user preferences, where said user attribute information includes first hierarchical levels, wherein said first hierarchical levels includes at least two levels with a first user attribute information of a first level associated with both a second and a third user attribute information of a second level;
- (b) receiving program attribute information corresponding to said at least one of audio and video, where said program attribute information includes second hierarchical levels, wherein said second hierarchical levels includes at least two levels with a first program attribute information of a first level associated with both a second and a third program attribute information of a second level;
- (c) providing a mapping that interrelates at least a portion of said user attribute information and at least a portion of said program attribute

information based upon said first and second hierarchical levels,  
said mapping including a test operation between respective  
interrelations comprising at least one of:

- (i) substring-case-insensitive;
- (ii) substring-case-sensitive;
- (iii) string-match-case-insensitive;
- (iv) string-match-case-sensitive;
- (v) value-less-than;
- (vi) value-less-than-or-equal-to;
- (vii) value-greater-than;
- (viii) value-greater-than-or-equal-to;
- (ix) not equal to;
- (x) equal to; and
- (x) value-approximately.

18. (Original) The method of claim 17 further comprising selecting, in response to receiving said user attribute information and said program attribute information, at least one of audio and video based upon said mapping between said user attribute information and said program attribute information.

19. (Original) The method of claim 18 wherein said test operation is substring-case-insensitive, characterized by said portion of said user attribute information

being a substring of said portion of said program attribute information without matching the case of said matching substring.

20. (Original) The method of claim 18 wherein said test operation is string-case-insensitive, characterized by said portion of said user attribute information being a matching string of said portion of said program attribute information without matching the case of said matching string.

21. (Original) The method of claim 18 wherein said test operation is substring-case-sensitive, characterized by said portion of said user attribute information being a substring of said portion of said program attribute information with matching the case of said matching substring.

22. (Original) The method of claim 18 wherein said test operation is string-case-sensitive, characterized by said portion of said user attribute information being a matching string of said portion of said program attribute information with matching the case of said matching string.

23. (Original) The method of claim 18 wherein said test operation is less than, characterized by said portion of said user attribute information being less than said portion of said program attribute information.

24. (Original) The method of claim 18 wherein said test operation is greater than, characterized by said portion of said user attribute information being greater than said portion of said program attribute information.

25. (Original) The method of claim 18 wherein said test operation is less than or equal to, characterized by said portion of said user attribute information being less than or equal to said portion of said program attribute information.

26. (Original) The method of claim 18 wherein said test operation is greater than or equal to, characterized by said portion of said user attribute information being greater than or equal to said portion of said program attribute information.

27. (Original) The method of claim 18 wherein said test operation is not equal to, characterized by said portion of said user attribute information being not equal to said portion of said program attribute information.

28. (Original) The method of claim 18 wherein said test operation is equal to, characterized by said portion of said user attribute information being equal to said portion of said program attribute information.

29. (Original) The method of claim 18 wherein said test operation is approximately, characterized by said portion of said user attribute information being approximately the same as said portion of said program attribute information.

30. (Currently Amended) A method for selecting at least one of audio and video comprising:

- (a) receiving user attribute information corresponding to user preferences, where said user attribute information includes first hierarchical levels, wherein said first hierarchical levels includes at

least two levels with a first user attribute information of a first level associated with both a second and a third user attribute information of a second level;

- (b) receiving program attribute information corresponding to said at least one of audio and video, where said program attribute information includes second hierarchical levels, wherein said second hierarchical levels includes at least two levels with a first program attribute information of a first level associated with both a second and a third program attribute information of a second level;
- (c) providing a mapping that interrelates at least a portion of said user attribute information and at least a portion of said program attribute information based upon said first and second hierarchical levels, said mapping including a combinatorial operator between respective at least pairs of interrelations comprising at least one of:
  - (i) AND;
  - (ii) OR;
  - (iii) CAND;
  - (iv) MAX;
  - (v) MIN;
  - (vi) PROD;



- (vii) SAND;
- (viii) SUM;
- (ix) FREQ; and
- (x) RATIO.

31. (Original) The method of claim 30 further comprising selecting, in response to receiving said user attribute information and said program attribute information, at least one of audio and video based upon said mapping between said user attribute information and said program attribute information.

32. (Original) The method of claim 31 wherein said combinatorial operator is said AND, characterized by said respective at least pairs of interrelations boolean ANDed together.

33. (Original) The method of claim 31 wherein said combinatorial operator is said OR, characterized by said respective at least pairs of interrelations boolean ORed together.

34. (Original) The method of claim 31 wherein said combinatorial operator is said MAX, characterized by said respective at least pairs of interrelations combined arithmetically in a maximum function.

35. (Original) The method of claim 31 wherein said combinatorial operator is said MIN, characterized by said respective at least pairs of interrelations combined arithmetically in a minimum function.

36. (Original) The method of claim 31 wherein said combinatorial operator is said PROD, characterized by said respective at least pairs of interrelations combined arithmetically in a product function.

37. (Original) The method of claim 31 wherein said combinatorial operator is said SUM, characterized by said respective at least pairs of interrelations combined arithmetically in a sum function.

38. (Original) The method of claim 31 wherein said combinatorial operator is said FREQ, characterized by said respective at least pairs of interrelations boolean counted together with the resulting sum normalized.

39. (Original) The method of claim 31 wherein said combinatorial operator is said RATIO, characterized by said respective at least pairs of interrelations boolean counted together with the resulting sum normalized by the number of individual preference tests.

40. (Original) The method of claim 31 wherein said combinatorial operator is said CAND, characterized by said respective at least pairs of interrelations constrained common node tested.

41. (Original) The method of claim 31 wherein said combinatorial operator is said SAND, characterized by said respective at least pairs of interrelations ANDed together in a non-boolean manner.

42. (Currently Amended) A method for selecting at least one of audio and video comprising:

- (a) receiving user attribute information corresponding to user preferences, where said user attribute information includes first hierarchical levels, wherein said first hierarchical levels includes at least two levels with a first user attribute information of a first level associated with both a second and a third user attribute information of a second level;
- (b) receiving program attribute information corresponding to said at least one of audio and video, where said program attribute information includes second hierarchical levels, wherein said second hierarchical levels includes at least two levels with a first program attribute information of a first level associated with both a second and a third program attribute information of a second level;  
and
- (c) providing a first mapping that interrelates at least a portion of said user attribute information and at least a portion of said program attribute information based upon said first and second hierarchical levels, said first mapping including a first combinatorial operator between respective at least pairs of interrelations; and

- (d) providing a second mapping including a second combinatorial operator between respective at least pairs of the result of said first mapping.

43. (Currently Amended) The method of claim 42 further comprising selecting, in response to receiving said user attribute information and said program attribute information, at least one of audio and video based upon said first mapping between said user attribute information and said program attribute information.

44. (Original) The method of claim 43 wherein said second combinatorial operator operates on the results of said first mapping that have dissimilar reference names.

45. (Original) The method of claim 43 wherein said second combinatorial operator operates on the results of said first mapping that have the same reference names.

46. (Original) The method of claim 45 further providing a third mapping including a third combinatorial operator between respective at least pairs of the result of said first mapping, wherein said third combinatorial operator operates on the results of said first mapping that have the same reference names.

47. (Original) The method of claim 43 wherein said first mapping includes a first path of said user attribute information within said first hierarchical levels that identifies at least one of said user attribute information, a second path of said program attribute information within said second hierarchical levels that identifies at least one of said

program attribute information, said second combinatorial operator operates on the results of said first mapping constrained by a base path.

48. (Currently Amended) A method for selecting at least one of audio and video comprising:

- (a) receiving user attribute information corresponding to user preferences, where said user attribute information includes first hierarchical levels, wherein said first hierarchical levels includes at least two levels with a first user attribute information of a first level associated with both a second and a third user attribute information of a second level;
- (b) receiving program attribute information corresponding to said at least one of audio and video, where said program attribute information includes second hierarchical levels, wherein said second hierarchical levels includes at least two levels with a first program attribute information of a first level associated with both a second and a third program attribute information of a second level;
- (c) selecting, in response to receiving said user attribute information and said program attribute information, at least one of audio and video based upon a mapping between said user attribute information and said program attribute information; and

- (d) further selecting, based upon the selecting of step (c), at least one of said audio and video based upon information regarding how the user desires to consume said at least one of audio and video.

49. (Original) The method of claim 48 wherein said consume includes at least one of volume, contrast, and audio/visual summary.

50. (Original) The method of claim 48 wherein said further selecting is provided by a service provider remote to said user.

51. (Original) The method of claim 48 wherein said further selecting is performed based upon multiple potential service levels provided by a service provider.

52. (Original) The method of claim 48 wherein said further selecting is based, at least in part, upon the user's available storage.

53. (Original) The method of claim 48 wherein said further selecting is based, at least in part, upon the user's available bandwidth to receive said at least one of audio and video.

54. (Currently Amended) A method for selecting at least one of audio and video comprising:

- (a) receiving user attribute information corresponding to user preferences, where said user attribute information includes first hierarchical levels, wherein said first hierarchical levels includes at least two levels with a first user attribute information of a first level

associated with both a second and a third user attribute information of a second level;

- (b) receiving program attribute information corresponding to said at least one of audio and video, where said program attribute information includes second hierarchical levels wherein said second hierarchical levels includes at least two levels with a first program attribute information of a first level associated with both a second and a third program attribute information of a second level;
- (c) selecting, in response to receiving said user attribute information and said program attribute information, at least one of audio and video based upon a mapping between said user attribute information and said program attribute information; and
- (d) further selecting, based upon the selecting of step (c), at least one of said audio and video based upon information regarding at least one of:
  - (i) the user's available bandwidth to receive said at least one of audio and video;
  - (ii) the user's available storage for said at least one of audio and video; and

- (iii) multiple potential service levels provided by a service provider.

55. (Original) The method of claim 54 wherein said information regarding is said user's available bandwidth.

56. (Original) The method of claim 54 wherein said information regarding is said user's available storage.

57. (Original) The method of claim 54 wherein said information regarding is said multiple potential service levels.

58. (Original) The method of claim 54 wherein said selecting is performed by a service provider remote to said user.

59. (Original) The method of claim 55 wherein said selecting is performed by a service provider remote to said user.

60. (Original) The method of claim 56 wherein said selecting is performed by a service provider remote to said user.

61. (Original) The method of claim 57 wherein said selecting is performed by a service provider remote to said user.